

REMARKS/ARGUMENTS

Favorable reconsideration of this application as presently amended and in light of the following discussion is respectfully requested. Claims 1-14 are pending, Claims 1, 2, 3, 5 and 6 having been amended by way of the present amendment.

In the outstanding Office Action, Claims 1-10 were rejected as being obvious over Arai et al. (U.S. Patent No. 5,150,280); and Claims 11-14 were rejected as being unpatentable over Arai et al. in view of Tomonari et al. (U.S. Patent No. 6,384,509).

In reply, it is first noted that the basis of the rejection is virtually the same as that provided in the original Office Action of May 20, 2002. The substance of the new material in the present Office Action is found in paragraph 4, providing rebuttal arguments to the remarks made by Applicants' representative. The Office Action asserts that Arai et al. discloses a silicon substrate (element 16), referring to column 12, lines 51-60, wherein Si is an abbreviation for silicon. Applicants respectfully traverse this assertion. Arai et al. is quite clear in column 12, lines 50-60, that the element 16 is a metal member. The term "Si" appearing in this portion of Arai et al. merely is a reference to the type of material from which the IC is made, not the material of metal member 16 (or substrate). Accordingly, it is respectfully submitted that Arai et al. neither teaches nor suggests the silicon substrate, or the first insulating layer, first conductor layer, second insulating layer, or second conductor layer, all of which are formed in succession over the silicon substrate.

With regard to the last feature of amended Claim 1, the "end portion of the second conductor layer...", Applicants have amended this feature of Claim 1 to make clear that a portion of the second conductor layer is in direct contact to the first insulating layer. By having a portion of the second conductor layer which is in direct contact with the first insulating layer, with no second insulating layer and no first conductor layer interposed therebetween, the portion can preferably serve as a bonding portion which is less susceptible

to exfoliation of bonding pads when subject to wire bonding. The present inventors therefore recognized, that this approach enables a second insulating layer to be thinner, which is favorable in terms of high speed transmission and reduction in size of the optical module.

It is respectfully submitted that this feature is neither taught nor suggested in Arai et al. Moreover, the outstanding Office Action asserts that item 50 in Figure 18 of Arai et al. corresponds to the first insulating layer of the claimed invention. However, this interpretation is in contradiction with the acknowledgement that item 120 corresponds to the first insulating layer. Applicants note that if item 50 corresponds to the first insulating layer, then there is neither a first conductor layer, second insulating layer, nor second conductor layer which should be on the first conductor layer. Accordingly, it is respectfully submitted that Claim 1, as amended patentably defines over the asserted prior art.

Furthermore, it is respectfully submitted that this amendment raises no new issues as the basis for this final rejection is a misunderstanding of the teachings of Arai et al. Accordingly, it is requested that this amendment after final rejection be entered.

For substantially the same reasons with regard to Claim 1 it is respectfully submitted that Claims 2-10 also patentably define over Arai et al.

As Claims 11-14 also depend from amended Claim 1 and the basis of this rejection is that the main features of Claim 1 are found in Arai et al., it is respectfully submitted that no matter how Arai et al. is combined with Tomonari, the combination neither teaches nor suggests all the features of Claim 1, and therefore does not render obvious the invention defined by dependent Claims 11-14.

Consequently, in view of the present amendment and in light of the foregoing comments, it is respectfully submitted that the invention defined by Claims 1-14, as amended, patentably defines over the asserted prior art. The present application is therefore believed to

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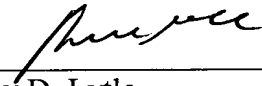
be in condition for formal allowance and an early and favorable reconsideration of this  
application is therefore requested.

Respectfully submitted,

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